In the Claims:

1. (Previously Presented) A method for controlling the forwarding quality in a data network, the method comprising:

measuring end-to-end forwarding quality in measurement nodes located outside a network core;

detecting forwarding quality violations in at least one path between the measurement nodes;

selecting at least one potentially overloaded interface along the at least one path where forwarding quality violations were detected by combining knowledge about different end-to-end measurements performed in the data network with knowledge about network topology and knowledge about booking levels and forwarding capacity for interfaces along the at least one path; and

defining a new or adjusting an already existing provisioning level for each selected interface, said provisioning level defining a maximum admitted sum of forwarding resources requested directly or indirectly by applications for their application data flows for the interfaces, such that usage of each path detected to have forwarding quality violations is limited at one or more interfaces.

2. (Previously Presented) The method according to claim 1, further comprising iterating the method to improve provision settings of the data network.

3. (Previously Presented) The method according to claim 1, further comprising storing information about previous end-to-end measurements and previous booking levels for the interfaces.

4.   (Previously Presented) The method according to claim 1, wherein the selecting is performed at least in part by using history of previous booking levels with associated quality violations, forwarding capacities, and/or provisioning levels for the interfaces.

5.   (Previously Presented) The method according to claim 3, further comprising:

detecting that a previously set provisioning level for an interface is reached without any measured quality violation on paths involving the interface; and

by using the stored information of previous end-to-end measurements and previous booking levels, selecting at least one other interface that probably caused the end-to-end forwarding quality violation measured when the previously set provisioning level was set, removing or increasing the provisioning level for the previously selected interface, and providing a provisioning level to the at least one other interface, or if no other potentially overloaded interfaces exist, increasing the limiting provisioning level.

6.   (Previously Presented) The method according to claim 1, wherein the defining of the new or adjusting of the already existing provisioning level for each selected interface is performed at least in part by setting the provisioning level equal to the booking level for the selected interface at the time of the detected quality violation.

7.   (Previously Presented) The method according to claim 1, wherein the defining of the new or adjusting of the already existing provisioning level for each selected interface is performed at least in part by setting the provisioning level lower than the booking level in the selected interface at the time of the detected forwarding quality violation and either pre-empting

some reservations to reach the provisioning level or waiting for some reservations to be released to reach the provisioning level.

8.   (Previously Presented) The method according to claim 6, wherein choosing one of the described provisioning level setting methods depends on which level of quality violation was measured.

9.   (Previously Presented) A node in a data network, said node controlling a forwarding quality in the data network and comprising:

        receiving means to receive information of end-to-end measurements of forwarding quality performed in the data network and to receive information of the data network topology and information of booking levels and forwarding capacity for interfaces in the data network;

        selecting means connected to the receiving means to combine information from the end-to-end measurements with the topology information and the information of booking levels to select at least one potentially overloaded interface comprised in at least one path where forwarding quality violations have been detected by the end-to end measurements of forwarding quality; and

        provisioning level defining and adjusting means connected to the selecting means to define a new or adjust an already existing provisioning level for the at least one potentially overloaded interface, said provisioning level defining a maximum admitted sum of forwarding resources requested directly or indirectly by applications for their application data flows for the interfaces, such that usage of each path detected to have forwarding quality violations is limited at one or more interfaces.

10.   (Previously Presented) The node according to claim 9, wherein the node iterates the process of defining and adjusting provisioning levels to improve the settings of the provisioning levels in the system.

11.   (Previously Presented) The node according to claim 9, further comprising storing means connected to the receiving means and to the selecting means, said storing means to store information about previous end-to-end measurements and previous booking levels for the interfaces.

12.   (Previously Presented) The node according to claim 11, wherein the selecting means retrieves information from the storing means in order to use history of previous booking levels together with any associated forwarding quality violations, forwarding capacities, and/or provisioning levels for the interfaces for selection of at least one potentially overloaded interface.

13.   (Previously Presented) The node according to claim 11, wherein the receiving means receives information that a previously set provisioning level in an interface is reached without any measured forwarding quality violation on paths involving this interface and the selecting means uses the stored information of previous end-to-end measurements and previous booking levels to select at least one other interface that probably caused the forwarding quality violation measured when the previously set provisioning level was set, and the defining and adjusting means removes or increases the provisioning level for the previously selected interface and provides a provisioning level to each new selected interface, or if no other potentially overloaded interfaces exist, increase the limiting provisioning level.

14.   (Previously Presented) The node according to claim 9, wherein the defining or adjusting means sets the provisioning level equal to the booking level for the interface at the time of the detected quality violation.

15.   (Previously Presented) The node according to claim 9, wherein the defining or adjusting means sets the provisioning level lower than the booking level for the interface at the time of the detected forwarding quality violation and either pre-empting some reservations to reach the provisioning level or waiting for some reservations to be released to reach the provisioning level.

16.   (Previously Presented) The node according to claim 14, wherein the defining or adjusting means chooses one of the described provisioning level setting methods depending on which level of forwarding quality violation was measured.

17.   (Cancelled)

18.   (Previously Presented) A computer-readable medium encoded with computer instructions which when executed cause a computer to perform a method, the method comprising the steps of claim 1.

19.   (Previously Presented) The method according to claim 2, further comprising storing information about previous end-to-end measurements and previous booking levels for the interfaces.

20.   (Cancelled)